6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, 264, 265, 268, 270, and 273

[EPA-HQ-OLEM-2017-0463; FRL-10002-49-OLEM]

RIN 2050-AG92

Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA or the Agency) is adding hazardous waste aerosol cans to the universal waste program under the Federal Resource Conservation and Recovery Act (RCRA) regulations. This change will benefit the wide variety of establishments generating and managing hazardous waste aerosol cans, including the retail sector, by providing a clear, protective system for managing discarded aerosol cans. The streamlined universal waste regulations are expected to ease regulatory burdens on retail stores and others that discard hazardous waste aerosol cans; promote the collection and recycling of these cans; and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors.

DATES: This final rule is effective on **[insert date 60 days after date of publication in the Federal Register].**

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-RCRA-2017-0463. All documents in the docket are listed on the http://www.regulations.gov web site. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as

copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through http://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Laura Stanley, Office of Land and Emergency Management (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460; telephone number:703-308-7285; email address: stanley.laura@epa,gov, or Tracy Atagi, Office of Land and Emergency Management (5304P), Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460; telephone number:703-308-8672; email address: atagi.tracy@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

This final rule will affect persons who generate, transport, treat, recycle, or dispose of hazardous waste aerosol cans, herein referred to as aerosol cans, unless those persons are households or very small quantity generators (VSQGs). Entities potentially affected by this action include over 25,000 industrial facilities in 20 different industries (at the 2-digit North American Industry Classification System (NAICS) code level). An estimated 7,483 of these facilities are large quantity generators (LQG). Most of these industries have relatively few entities that are potentially affected. The two top economic sectors (at the 2-digit NAICS code level) with the largest percentage of potentially affected entities are the retail trade industry (NAICS code 44–45), representing 69% of the affected LQG universe, and manufacturing (NAICS code 31–33), representing 17% of the affected LQG universe. Potentially affected categories and entities include, but are not necessarily limited to:

2 Digit NAICS Code	Primary NAICS Description	Total Affected Large Quantity Generators	Generated Tons
44-45	Retail Trade	5,194	303
31-33	Manufacturing	1,238	7,771
48-49	Transportation and Warehousing	168	1,033
62	Health Care and Social Assistance	184	13
81	Other Services (except Public Administration)	169	4
92	Public Administration	113	190
61	Educational Services	116	32
54	Professional, Scientific, and Technical Services	89	16
42	Wholesale Trade	75	511
22	Utilities	40	14
56	Administrative and Support and Waste Management and Remediation Services	51	1,906
	All Other NAICS Codes	46	49
TOTAL		7,483	11,843

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. Other entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in section V of this action. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the FOR FURTHER INFORMATION CONTACT section.

B. What action is the agency taking?

The Environmental Protection Agency (EPA) is adding hazardous waste aerosol cans to the list of universal wastes regulated under the RCRA regulations. This revision will benefit the wide variety of establishments generating and managing aerosol cans, including the retail sector, by providing a clear, practical system for handling discarded aerosol cans.

C. What is the agency's authority for taking this action?

These regulations are promulgated under the authority of sections 2002(a), 3001, 3002, 3004, and 3006 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), and as amended by the Hazardous and Solid Waste Amendments (HSWA), 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.

D. What are the incremental costs and benefits of this action?

This final action is estimated to result in an annual cost savings of $5.3 million to $47.8 million. Information on the estimated economic impacts of this action is presented in section VIII of this document, as well as in the Regulatory Impact Analysis (RIA) available in the docket for this final action. In addition to cost savings, EPA's analysis shows qualitative benefits to adding aerosol cans to the universal waste program, including improved implementation of and compliance with the hazardous waste program and increased recovery and recycling of aerosol cans.

II. List of Acronyms

CFR	Code of Federal Regulations
DOT	Department of Transportation
EPA	Environmental Protection Agency
EO	Executive Order
FR	Federal Register
LQG	Large Quantity Generator
LQHUW	Large Quantity Handler of Universal Waste
NAICS	North American Industry Classification System
NODA	Notice of Data Availability
OMB	Office of Management and Budget

RCRA	Resource Conservation and Recovery Act
SQG	Small Quantity Generator
SQHUW	Small Quantity Handler of Universal Waste
TSDF	Treatment, Storage and Disposal Facility
VSQG	Very Small Quantity Generator

III. Background

A. Summary of Proposal

On March 16, 2018, EPA published the proposal to add aerosol cans to the Federal universal waste program (83 FR 11654). EPA's proposal recognized that inclusion of this common waste stream as universal waste could better ensure that aerosol cans are managed appropriately at the end of their lives, remove these wastes from the municipal waste stream, potentially encourage recycling, and reduce unnecessary burden for generators.

In its proposal, EPA analyzed the factors for inclusion of a waste stream in the universal waste program and took public comment on its conclusions. In addition, EPA defined what materials would qualify as aerosol cans for the purposes of management as universal waste. EPA proposed management standards for handlers of these materials and took public comment on the proposed standards.

In addition to the universal waste management standards that apply to all universal waste handlers, such as labeling and marking, accumulation time limits, employee training, responses to releases, export requirements, and, for large quantity handlers of universal waste, notification and tracking, EPA proposed specific standards that relate to the puncturing and draining of aerosol cans.

EPA proposed that puncturing and draining of aerosol cans be conducted by a commercial device specifically designed to safely puncture aerosol cans and effectively contain the residual contents as well as any emissions from the puncturing and draining activities. In addition, EPA proposed that handlers establish written procedures for safely puncturing and draining universal waste aerosol cans and ensure that employees operating the device be trained in the proper procedures. EPA proposed that puncturing of aerosol cans be done in a manner designed to prevent fires and releases and that any residuals from puncturing cans be transferred to a tank or container, at which point the handler must make a hazardous waste determination on the residuals, as required in 40 CFR 262.11. The proposal also included that written procedures be in place in the event of a spill or release, that a spill clean-up kit be provided, and that any spills or leaks be cleaned up promptly.

In addition to these proposed standards, EPA analyzed the existing state universal waste programs that include aerosol cans and requested comment on including further limitations on puncturing and draining of cans that might contain materials that pose an incompatibility hazard with other materials or establishing further limits on which types of handlers are allowed to puncture and drain aerosol cans within the universal waste program.

EPA has analyzed all the comments received in response to its proposed rule and responds to those comments in this final rule or in the Response to Comment document available in the docket for this rulemaking.

B. Description of Aerosol Cans

Aerosol cans are widely used for dispensing a broad range of products including paints, solvents, pesticides, food and personal care products, and many others. The Household and Commercial Products Association estimates that 3.75 billion aerosol cans were filled in the

United States in 2016 for use by commercial and industrial facilities as well as by households. [1]

A typical aerosol can consists of several components, including (but not limited to) the following: (1) the can or container storing both propellant and the product; (2) an actuator or button at the top of the can that is pressed to deliver the product; (3) a valve, which controls delivery or flow of the product; (4) the propellant (a compressed gas or liquefied gas), which provides the pressure in the container to expel or release the product when the actuator is pressed to open the valve; (5) the product itself; and (6) a dip tube, which is connected to the valve to bring the product up through the can to be released when the actuator is pressed.[2]

The can itself is typically a small steel or aluminum container, designed to be hand-held, which is sealed with its contents under pressure. The can's design is intended to prevent unwanted releases of the contents to the environment under normal handling and storage conditions. However, when aerosol cans are mismanaged, particularly when exposed to excessive heat, the resulting increase in internal pressure can reach a point beyond the design strength of the can, thereby causing it to burst and release its contents. At the point of bursting, the contents of the can have been heated to a temperature and pressure far above ambient environmental conditions, causing the contents to rapidly vaporize and be forcefully released. If the propellant or product is ignitable, the contents of the can may readily catch fire as they are released and exposed to atmospheric oxygen, creating a rapidly burning vapor "fireball." In addition, the bottom of the can may detach as a result of a manufacturing defect or an external force, potentially causing the upper part of the can to become a projectile.

Aerosol cans frequently contain flammable propellants such as propane or butane which

[1] Household and Commercial Products Association, Aerosol Products Survey Shows Strong, Stable Industry, May 2017. https://www.thehcpa.org/aerosol-products-survey-shows-strong-stable-industry/ retrieved October 21, 2019.
[2] National Aerosol Association, *History of the Aerosol*, http://www.nationalaerosol.com/history-of-the-aerosol/, retrieved December 11, 2017.

can cause the aerosol can to demonstrate the hazardous characteristic for ignitability (40 CFR 261.21).[3] In addition, the aerosol can may also be a hazardous waste for other reasons when discarded. More specifically, an aerosol can may contain materials that exhibit hazardous characteristics per 40 CFR part 261, subpart C. Similarly, a discarded aerosol can may also be a P- or U-listed hazardous waste if it contains a commercial chemical product found at 40 CFR 261.33(e) or (f).

C. Current Federal Regulation of Aerosol Cans

1. Regulation of Aerosol Cans Under RCRA

Any person who generates a solid waste, as defined in 40 CFR 261.2, must determine whether the solid waste qualifies as hazardous waste. The waste may be hazardous either because it is listed as a hazardous waste in subpart D of 40 CFR part 261 or because it exhibits one or more of the characteristics of hazardous waste, as provided in subpart C of 40 CFR part 261. As discussed above, aerosol cans are frequently hazardous due to the ignitability characteristic and in some cases may also contain listed waste or exhibit other hazardous waste characteristics.[4]

Until this rulemaking goes into effect, many, but not all, generators of aerosol cans identified or listed as a hazardous waste have been subject to the full RCRA Subtitle C hazardous waste management requirements, including all applicable requirements of 40 CFR parts 260 through 268. Depending on their activities, some generators have only to meet the requirements of part 262, including on-site management, pre-transport, and manifesting. Under 40 CFR 262.14, VSQGs, defined as facilities that generate less than or equal to 100 kilograms of

[3] University of Vermont, *Paint and Aerosol Safety*, http://www.uvm.edu/safety/art/paint-aerosol-safety, retrieved December 11, 2017.
[4] Aerosol cans that have not been discarded are not solid or hazardous wastes.

hazardous waste in a calendar month, are not subject to the RCRA Subtitle C hazardous waste management standards, provided they send their waste to a municipal solid waste landfill or non-municipal nonhazardous waste facility approved by the state for the management of VSQG wastes and meet other conditions. In addition, households that generate waste aerosol cans are exempt from the Federal hazardous waste management requirements under the household hazardous waste exemption in 40 CFR 261.4(b)(1).[5]

Facilities that treat, store, and/or dispose of hazardous waste aerosol cans are subject to the requirements of 40 CFR part 264 (for permitted facilities) or the requirements of 40 CFR part 265 (for interim status facilities). However, when hazardous waste aerosol cans are recycled, the recycling process itself is not subject to regulation, except as indicated in 40 CFR 261.6(d). EPA has interpreted the current hazardous waste regulations to mean that puncturing and draining an aerosol can, if performed for the purpose of recycling (e.g., for scrap metal recycling), is considered part of the recycling process and is exempt from RCRA permitting requirements under 40 CFR 261.6(c).[6] However, until this rulemaking goes into effect, facilities receiving hazardous waste aerosol cans from off site would require a RCRA permit for storage prior to the recycling activity and the recycling process would be subject to subparts AA and BB of 40 CFR part 264 or 265, or subject to part 267.

2. Regulation Under the Federal Insecticide, Fungicide, and Rodenticide Act

Hazardous waste aerosol cans that contain pesticides are also subject to the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), including compliance with

[5] Under 40 CFR 261.4(b)(1), "household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas).

[6] EPA first explained this interpretation in 1993. *See* U.S. EPA *1993 Regulatory Status of Used Residential And Commercial/Industrial Aerosol Cans,* Memo from Jeff Denit, Acting Director, Office of Solid Waste to John DiFazio, Chemical Specialties Manufacturers Association, October 7, 1993. RO# 11780

the instructions on the label. In general, the statement on aerosol pesticide product FIFRA labels prohibits the puncturing of the cans. However, in April 2004, EPA issued a determination that puncturing aerosol pesticide containers in the process of recycling aerosol cans is consistent with the purposes of FIFRA. The purpose of the label prohibiting puncturing of pesticide-containing aerosol cans is to protect the ordinary users of pesticides from the hazards of pressurized containers. The hazards associated with recycling aerosol pesticide containers are adequately, and more appropriately, addressed under Federal, state and local laws concerning solid and hazardous wastes and occupational safety and health. Such puncturing is therefore lawful pursuant to FIFRA section 2(ee)(6) provided that the following conditions are met:

- The puncturing of the container is performed by a person who, as a general part of his or her profession, performs recycling and/or disposal activities;
- The puncturing is conducted using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof; and
- The puncturing, waste collection, and disposal, are conducted in compliance with all applicable Federal, state, and local waste (solid and hazardous waste) and occupational safety and health laws and regulations.[7]

D. Retail Strategy and Aerosol Cans

The retail sector as a whole handles a very large number of diverse products, which change over time and may, in many instances, become regulated as hazardous waste under RCRA when discarded. As a result, retailers are required to make hazardous waste

[7] 2004 U.S. EPA *Puncturing of Aerosol Pesticide Products Under FIFRA for the Purpose of Recycling*, Letter from Lois Rossi and William Diamond, Office of Pollution Prevention and Toxic Substances, U.S. EPA, to John A. Wildie, Randolph Air Force Base, April 30, 2004, Docket ID# EPA-HQ-OLEM-2017-0463-0007.

determinations for a variety of products being discarded at stores located across the country.

In 2014, EPA published a Notice of Data Availability (NODA) for the Retail Sector as part of the Agency's continuing efforts to better understand concerns from all stakeholders regarding RCRA's applicability to the retail sector, as well as to obtain information and feedback on issues affecting the retail sector (79 FR 8926, February 14, 2014). In the NODA, EPA requested comment on a series of topics related to retail operations, waste management practices, and management of materials that may become hazardous waste when discarded. This specifically included requests for information regarding aerosol cans (e.g., quantity generated, classification, and management options, including handling them as universal waste), since aerosol cans comprise a large percentage of the retail sector's hazardous waste stream. Approximately 35% of NODA commenters specifically suggested that discarded aerosol cans be managed as universal waste.

In response to comments on the Retail Sector NODA, the Agency published the *Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework*, which lays out a cohesive plan to address the unique challenges faced by the retail sector in complying with RCRA regulations while reducing burden and protecting human health and the environment.[8] One of the action items under the Retail Strategy is to explore adding hazardous waste aerosol cans to the Universal Waste Rule. This final rule, which adds aerosol cans to the Federal universal waste program, completes EPA's commitment in the Retail Strategy to explore this option. Further, with this action, EPA has completed all commitments made in the Retail Strategy.

[8] EPA 2016. *Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework*. September 12, 2016. https://www.epa.gov/hwgenerators/strategy-addressing-retail-sector-under-resource-conservation-and-recovery-acts, retrieved on January 24, 2018.

E. Universal Waste Rule

In 1995, EPA promulgated the Universal Waste Rule (60 FR 25492, May 11, 1995) to establish a streamlined hazardous waste management system for widely generated hazardous wastes as a way to encourage environmentally sound collection and proper management of the wastes within the system. Hazardous waste batteries, certain hazardous waste pesticides, mercury-containing equipment, and hazardous waste lamps are already included on the Federal list of universal wastes. The universal waste regulations in 40 CFR part 273 are a set of alternative hazardous waste management standards that operate in lieu of regulation under 40 CFR parts 260 through 272 for specified hazardous wastes.

Handlers and transporters who generate or manage items designated as a universal waste are subject to the management standards under 40 CFR part 273, rather than the full RCRA Subtitle C regulations. Handlers include both facilities that generate universal waste and facilities that receive universal waste from other universal waste handlers, accumulate the universal waste, and then send the universal waste to another handler, a destination facility, or a foreign destination. Handlers do not include facilities that treat, dispose of, or recycle universal waste except as provided in the universal waste regulations. The regulations distinguish between "large quantity handlers of universal waste" (those who handle more than 5,000 kilograms of total universal waste at one time) and "small quantity handlers of universal waste" (those who handle 5,000 kilograms or less of universal waste at one time). The 5,000-kilogram accumulation limit applies to the quantity of all universal wastes accumulated. The streamlined standards include requirements for storage, labeling and marking, preparing the waste for shipment off site, employee training, response to releases, and, in the case of large quantity handlers, notification and tracking of universal waste shipments. Transporters of universal waste are also subject to

less stringent requirements than the full Subtitle C hazardous waste transportation regulations.

Under the Universal Waste Rule, destination facilities are those facilities that treat, store, dispose, or recycle universal wastes. Universal waste destination facilities are subject to all currently applicable requirements for hazardous waste treatment, storage, and disposal facilities (TSDFs) and must receive a RCRA permit for such activities. Destination facilities that recycle universal waste and that do not store that universal waste prior to recycling in accordance with 40 CFR 261.6(c)(2) may be exempt from permitting under the Federal regulations (see 40 CFR 273.60(b)). Finally, states implementing the universal waste program are authorized to add wastes that are not Federal universal wastes to their lists of universal wastes. Therefore, in some states, aerosol cans are already regulated as a universal waste.

F. State Universal Waste Programs that Include Aerosol Cans

Five states—California, Colorado, New Mexico, Ohio, and Utah—already have universal waste aerosol can programs in place, and Minnesota plans to propose to add aerosol cans to their universal waste regulations in 2019.[9] The universal waste programs in all these states include streamlined management standards similar to 40 CFR part 273 for small and large quantity handlers of universal waste and a one-year accumulation time limit for the aerosol cans. In addition, the five current state universal waste programs set standards for puncturing and draining of aerosol cans by universal waste handlers.

The aerosol can universal waste programs in California, Colorado, New Mexico, Ohio, and Utah allow for puncturing and draining of aerosol cans by universal waste handlers, as long as specific management standards and waste characterization requirements are met. In addition,

[9] See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463). See also Minnesota Pollution Control Agency 2016, *Public Rulemaking Docket,* https://www.pca.state.mn.us/sites/default/files/mm-rule1-00.pdf, retrieved August 21, 2019.

California does not allow off-site commercial processors[10] to puncture and drain aerosol cans without a permit and requires those handlers that do puncture and drain cans to submit a notification. Guidance in effect in Minnesota at the time of publication of this final rule also allows handlers to puncture and drain their aerosol cans.

IV. Rationale for Including Aerosol Cans in the Universal Waste Rule

A. *Factors for Inclusion in the Universal Waste Rule*

EPA is adding aerosol cans to the list of universal wastes because this waste meets the factors found at 40 CFR 273.81 that describe hazardous waste appropriate for management under the streamlined universal waste system. Adding aerosol cans to the Universal Waste Rule simplifies handling and disposal of the wastes for generators, while ensuring that universal waste aerosol cans are sent to the appropriate destination facilities, where they will be managed as a hazardous waste with all applicable Subtitle C requirements to ensure protection of human health and the environment. Management as universal waste under the final requirements is also expected to facilitate environmentally sound recycling of the metal used to make the cans.

The universal waste regulations include eight factors to consider in evaluating whether a waste is appropriate for including in the regulations as a universal waste. These factors, codified at 40 CFR 273.81, are to be used to determine whether regulating a particular hazardous waste under the streamlined standards would improve overall management of the waste, and, therefore, whether the waste is a good candidate to be a universal waste. As the Agency noted in the preamble to the final Universal Waste Rule (60 FR 25513), not every factor must be met for a waste to be appropriately regulated under the universal waste system. However, consideration of

[10] According to California's guidance for their regulations, a "commercial processor" is any person that processes aerosol cans in exchange for compensation. Some examples include individuals from another generator's site, registered hazardous waste transporters, operators of hazardous waste treatment, storage and/or disposal facilities, and operators of transportable treatment units.

the weight of evidence should result in a conclusion that regulating a particular hazardous waste under 40 CFR part 273 will improve waste management.

EPA has examined information on aerosol cans, including information submitted in the public comments on the proposed rule and the public comments on the 2014 Retail NODA using the criteria in 40 CFR 273.81.[11] In light of its evaluation of this information, the Agency has determined that on balance, hazardous waste aerosol cans meet the factors in 40 CFR 273.81 warranting inclusion on the Federal list of universal wastes for management under part 273. EPA received numerous comments on the proposed rule agreeing that aerosol cans are appropriate for inclusion in the Universal Waste Rule. EPA believes that adding aerosol cans to the list of universal wastes will make collection and transportation of this waste to an appropriate facility easier, and therefore will help facilitate recycling and reduce the amount of aerosol cans disposed of in municipal landfills. A summary of how the criteria in 40 CFR 273.81 apply to aerosol cans is described below.

1. The Waste, as Generated by a Wide Variety of Generators, Should Be a Listed or Characteristic Hazardous Waste (40 CFR 273.81)(a))

As discussed in section III, aerosol cans frequently demonstrate the hazardous characteristic for ignitability (40 CFR 261.21) due to the nature of the propellant used. In addition, the contents (propellant or product) may also exhibit another hazardous characteristic per 40 CFR part 261, subpart C, and may also be a P- or U-listed hazardous waste found at 40 CFR 261.33(e) or (f).

2. The Waste, or Category of Waste, Should Not Be Exclusive to a Particular Industry or Group of Industries, But Generated by a Wide Variety of Establishments (40 CFR 273.81(b))

[11] Public comments on the 2014 Retail NODA can be found in docket number EPA-HQ-RCRA-2012-0426.

EPA has documented in the RIA for this final rule that large and small quantity generators managing hazardous waste aerosol cans can be found in 20 different industries (at the 2-digit NAICS code level). Thus, aerosol cans are commonly generated by a wide variety of types of establishments, including retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities.

3. The Waste Should Be Generated by a Large Number of Generators and Frequently Generated in Relatively Small Quantities (40 CFR 273.81(c))

As documented in the RIA, more than 25,000 large and small quantity generators manage hazardous waste aerosol cans. Quantities generated vary depending on the type of generator and the situations associated with generation. For example, a retail store may determine that large quantities of aerosol cans that can no longer be sold or donated must be discarded as hazardous waste. On the other hand, entities that use aerosol cans in their day-to-day operations may generate small quantities of partially-used hazardous waste aerosol cans on a sporadic basis. Data from the RIA demonstrate that in 2017, LQGs generated an average of 1.6 tons per year each (approximately 3,600 cans).

4. Systems to Be Used for Collecting the Waste (Including Packaging, Marking, and Labeling Practices) Would Ensure Close Stewardship of the Waste (40 CFR 273.81(d))

The baseline universal waste requirements of notification, labeling, training, and response to releases found in 40 CFR part 273, subparts B and C, and the final specific requirements for management of aerosol cans in 40 CFR 273.13 and 40 CFR 273.33, discussed in section V, are designed to ensure close stewardship of the hazardous waste aerosol cans.

5. Risks Posed by the Waste During Accumulation and Transport Should Be Relatively Low

Compared to the Risks Posed by Other Hazardous Waste, and Specific Management Standards Would Be Protective of Human Health and the Environment During Accumulation and Transport (40 CFR 273.81(e))

Aerosol cans are designed to contain the products they hold during periods of storage and transportation as they move from the manufacturer to the retailer, and ultimately to the final customer. Because of their design, hazardous waste aerosol cans present a relatively low risk compared to other types of hazardous waste that are not contained as-generated under normal management conditions and the risk posed by intact waste aerosol cans during storage and transport is similar to the risk posed by intact product aerosol cans. Retail and other entities that generate waste aerosol cans are accustomed to safely handling aerosol can products. In addition, the ignitability risk posed during accumulation and transport is addressed by standards set by local fire codes, the Office of Safety and Health Administration, and the Department of Transportation (DOT).[12] These standards include requirements for outer packaging, can design, and general pressure conditions.

Finally, the Agency has determined that the requirements of the universal waste program are effective in mitigating risks posed by hazardous waste aerosol cans. Specifically, the requirements for handlers to accumulate aerosol cans in a container that is structurally sound and compatible with the contents of the aerosol cans will ensure safe management and transport. In addition, the universal waste program requires proper training for employees when handling universal waste, responding to releases, and shipment in accordance with DOT regulations. These requirements will make the risks posed during accumulation and transport low.

[12] For example, DOT – 49 CFR 173.306 for Shipping of Limited Quantities, Aerosol Cans and 49 CFR 173.115 for Flammable Gas, OSHA – 29 CFR 1910.106(d)(6), Flammable Liquids, 2015 NFPA – Chapter 30, Flammable and Combustible Liquids Code, and Chapter 30B, Code for the Manufacture and Storage of Aerosol Products.

Additionally, the final specific requirements for management of aerosol cans that are punctured and drained at the handler, described in section V, address the ignitability risk and are designed to help prevent releases. Thus, the specific aerosol can universal waste management standards address the risks posed by hazardous waste aerosol cans.

6. Regulation of the Waste Under 40 CFR Part 273 Will Increase the Likelihood That the Waste Will Be Diverted from Non-Hazardous Waste Management Systems (e.g., the Municipal Solid Waste Stream) to Recycling, Treatment, or Disposal in Compliance with Subtitle C of RCRA (40 CFR 273.81(f))

Managing hazardous waste aerosol cans under the universal waste program is expected to increase the number of these items collected and to increase the number of aerosol cans being diverted from the non-hazardous waste stream into the hazardous waste stream because it would allow generators, especially those that generate this waste sporadically, to send it to a central consolidation point. Under the Universal Waste Rule, a handler of universal waste can send the universal waste to another handler, where it can be consolidated into a larger shipment for transport to a destination facility. Therefore, under the final rule it will be more economical to send hazardous waste aerosol cans for recycling for recovery of metal values. The final rule will advance the RCRA goal of increased resource conservation and increase proper disposal of hazardous waste, making it less likely that aerosol cans will be sent for improper disposal in municipal landfills or municipal incinerators. In addition, because the streamlined structure of the universal waste regulations makes aerosol can collection programs more economical, hazardous waste aerosol cans that might otherwise be sent to a municipal landfill under a VSQG or household hazardous waste exemption will be more easily collected and consolidated for hazardous waste disposal. This waste will be diverted from the municipal solid waste stream to

universal waste management.

7. Regulation of the Waste Under 40 CFR Part 273 Will Improve the Implementation of and Compliance with the Hazardous Waste Regulatory Program (40 CFR 273.81(g))

The structure and requirements of the Universal Waste Rule are well suited to the circumstances of handlers of hazardous waste aerosol cans and their inclusion in the universal waste program will improve compliance with the hazardous waste regulations. In particular, handlers of hazardous waste aerosol cans who are infrequent generators of hazardous waste and who might otherwise be unfamiliar with the more complex Subtitle C management structure, but who generate hazardous waste aerosol cans, will be able to more easily send this waste for proper management. Therefore, adding aerosol cans to the list of universal wastes would offer a protective hazardous waste management system that is likely to be more accessible, particularly for the retail sector, which can face unique compliance challenges as compared to manufacturing and other "traditional" RCRA-regulated sectors.[13]

8. Additional Factor (40 CFR 273.81(h)): States' Experience Under Existing State Universal Waste Programs Indicates That Regulation Under 40 CFR Part 273 Will Improve Management of Aerosol Cans

The factors included in 40 CFR 273.81 are designed to determine whether regulating a particular hazardous waste under the streamlined standards for universal waste would improve the overall management of the waste; 40 CFR 273.81(h) includes other factors as may be appropriate. Under 40 CFR 273.81(h), EPA considered states' experience of already managing aerosol cans under state universal waste programs. As discussed in section III, five states have

[13] EPA 2016. *Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework.* September 12, 2016. https://www.epa.gov/hwgenerators/strategy-addressing-retail-sector-under-resource-conservation-and-recovery-acts, retrieved on January 24, 2018.

added aerosol cans to their universal waste programs, and those states' experiences with management of aerosol cans under their respective universal waste programs provides a useful source of information to inform EPA's judgment on whether to add aerosol cans to the national universal waste program.

Information supplied to EPA from officials in those five states indicates that their programs improve the implementation of the hazardous waste program. Specifically, waste management officials from the four states whose programs were operating at the time of the proposed rule have represented to EPA that these programs have been operating well and achieving their objective of facilitating safe management of hazardous waste aerosol cans.[14] In particular, State officials from both California and Colorado stated to EPA that their respective aerosol can universal waste programs have been in effect since 2002 and they have not identified any problems with enforcing compliance with the standards. Accordingly, this information weighs in favor of concluding that management of aerosol cans under the Federal universal waste regulations is likely to be successful.

B. *Expected Changes in Management of Aerosol Cans*

EPA expects that under this final rule, the number of aerosol cans that are diverted from municipal solid waste landfills and incinerators to recycling or disposal in Subtitle C facilities will increase. Small and large quantity generators are already required to manage their hazardous waste aerosol cans under RCRA Subtitle C. Following implementation of this rule, some of these generators will likely begin managing their aerosol cans as a universal waste, either to save money or to improve implementation of their existing waste management program. One of the streamlined provisions of the Universal Waste Rule allows consolidation of aerosol cans at

[14] See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

central locations, which makes it easier for smaller generators to arrange for hazardous waste recycling or disposal of these materials when they are generated. Because the streamlined structure of the universal waste standards makes aerosol can collection programs more economical, hazardous waste aerosol cans that might otherwise be sent to a municipal landfill under a VSQG or household hazardous waste exemption would be more easily collected and consolidated for hazardous waste disposal by those who are interested in managing it this way. EPA intends to encourage individual households and VSQGs to participate in such programs.

In summary, EPA believes that management of hazardous waste aerosol cans will best be implemented through a universal waste approach where handlers are operating within a simple, streamlined management system. The universal waste program addresses the environmental concerns surrounding the management of such wastes, while at the same time putting into place a structure that will allow for and encourage increased collection of aerosol cans for recycling.

V. Discussion of Final Rule

A. *Waste Covered by Final Rule*

1. Definition of Aerosol Can

a. *Discussion of Proposed Rule*

EPA proposed that an "aerosol can" be defined as an "intact container in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam." This definition is the same as the definition of aerosol can in the California, Colorado, New Mexico and Utah universal waste programs, with the exception of a twenty-four ounce size limit in Utah's definition of aerosol can. EPA proposed to adopt this definition of aerosol can to be consistent with the existing state programs.

This proposed definition was intended be limited to sealed containers whose intended use

is to dispense a material by means of a propellant or compressed gas. Aerosol cans are designed to contain those materials until they are intended for release and to present minimal risk during normal storage and transport. Other types of containers, including compressed gas canisters and propane cylinders, present a greater risk than aerosol cans and would not be included. EPA also requested comment on limiting the definition of aerosol cans to those under twenty-four ounces, consistent with Utah's aerosol can universal waste program.

b. *Summary of Comments*

Several commenters recommended that EPA model the definition of aerosol can after language used in the DOT regulations in 49 CFR 171.8 and U.N. Model Regulations. An aerosol is defined in 49 CFR 171.8 as an article consisting of any non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas. Commenters noted that, in addition to harmonizing the RCRA regulations with DOT requirements, this language would be more inclusive, making it clear that aerosol cans containing products that are not dispensed as a spray or foam, such as aerosol cans that dispense product in the form of paste or powder, may be managed as universal waste. In addition, this definition would address the risk of gas cylinders if managed as universal waste, since those cylinders would not be considered "non-refillable receptacles" with a "self-closing release device" and therefore not eligible to be managed as universal waste under the alternative wording.

Most commenters supported EPA's proposal to exclude compressed gas cylinders from the definition of universal waste aerosol can, noting that such devices pose a higher risk than aerosol cans pose. Two industry commenters requested that compressed gas cylinders be

included as universal waste, with one commenter asserting that "as long as facilities have procedures in place to safely depressurize these devices, potential risks can be mitigated."[15]

Finally, most commenters (including industry, most states, and local government) supported EPA's proposal to not set a specific size limit on aerosol cans. One state association and a few individual states did support limiting the size of aerosol cans to twenty-four ounces.

c. *Final Rule Provisions*

EPA is finalizing a definition of "aerosol can" that is consistent with language in the DOT regulations.[16] In the final rule, aerosol can is defined as a non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas. Using language from the DOT regulation will help ensure consistency across Federal regulatory programs, avoid unnecessarily narrowing the scope of the rule to aerosol cans that aerate their product, and will not inadvertently include compressed gas cylinders in the definition of aerosol can. Because compressed gas cylinders, unlike aerosol cans, require special procedures to safely depressurize, it would not be appropriate to include them in the final rule. Finally, because the DOT language is more inclusive than the proposed language, it better matches the intent of the proposal to apply to all types of aerosol cans, including cans that dispense product in the form of paste or powder, and would not require states that have already added aerosol cans to their universal waste program to change their regulations.

2. Applicability

a. *Discussion of Proposed Rule*

[15] See comment number 0088 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

[16] The DOT definition is also similar to the definition used in U.N. Model regulations. EPA chose the DOT version in order to promote consistency between the U.S. Federal regulatory programs.

The proposed rule excluded from the universal waste requirements those cans that are not yet a waste under 40 CFR part 261 and those cans that are not hazardous waste. In addition, at proposed 40 CFR 273.6(b)(1)–(3), the proposal specifically excluded aerosol cans that have been emptied of their contents (both propellant and product). Aerosol cans that fall under these categories would not be subject to hazardous waste requirements or universal waste requirements.

Finally, the proposed rule also proposed to exclude aerosol cans that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. This proposed rule language would mean that hazardous waste aerosol cans that are not intact would continue to be subject to the full hazardous waste standards.

b. *Summary of Comments*

Several commenters requested that EPA allow leaking and damaged aerosol cans to be managed as universal waste. Commenters point out that the rules for other types of universal wastes (lamps, pesticides, batteries, mercury-containing equipment) allow damaged or leaking items to be managed as universal waste as long as they are in an appropriate container (e.g., overpacked with absorbents). Commenters were concerned that determining whether an aerosol can shows "evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions" is a subjective standard that would be confusing to implement. Commenters noted that Colorado allows damaged aerosol cans to be managed as universal waste as long as they are managed in a separate individual container and that Ohio allows damaged aerosol cans to be managed as universal waste as long as they are overpacked with absorbents or immediately punctured to remove the contents of the can.

c. *Final Rule Provisions*

EPA is finalizing as proposed the language in 40 CFR 273.6(b)(1)–(3). These provisions designate aerosol cans that are not subject to hazardous waste requirements because they are either not solid waste, not hazardous waste, or they met the definition of empty container in 40 CFR 261.7.

However, EPA is not finalizing the proposed language in 40 CFR 273.6(b)(4), which would have barred leaking or damaged aerosol cans from being managed as universal waste, instead leaving such cans subject to 40 CFR part 262 hazardous waste requirements. Rather, EPA is requiring that universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the aerosol can universal waste requirements. (See 40 CFR 273.13(e)(2) and 40 CFR 273.33(e)(2)).

EPA agrees with those commenters who indicated that such an approach is more consistent with how other universal wastes are regulated and how the states that currently regulate aerosol cans as universal waste operate their programs. In addition, setting specific protective management standards for leaking aerosol cans under the universal waste regulations would ensure the risk from these cans is addressed and that they are ultimately sent to appropriate destination facilities per 40 CFR 273.18 and 40 CFR 273.38 instead of potentially being diverted to municipal waste streams as VSQG waste per the requirements in 40 CFR 262.14. Such an approach is also consistent with DOT requirement that aerosols that are damaged, defective, or leaking to the point where they do not meet applicable design standards be transported in special aerosol salvage drums. See 49 CFR 173.306(k)(2).

3. Comments and responses related to “emptied” aerosol cans

a. *Comment: Empty Aerosol Cans Should be Allowed to be Managed as Universal Waste*

Summary of Comments. Several commenters requested that EPA clarify that handlers should be able to continue to manage their punctured and drained aerosol cans as a universal waste and send them to another handler or destination facility. The proposed § 273.6(b)(3) designated aerosol cans that meet the standard for empty containers under § 261.7 of the chapter as being excluded from universal waste requirements, and the proposed definition for aerosol cans included the requirement that they be "intact," implying that punctured aerosol cans would not meet the definition. Commenters stated that including empty aerosol cans would provide a clear decision process for generators to include all aerosol cans—empty, full, or partially full—for proper handling and disposal as universal waste. However, commenters noted it would not be necessary to require empty aerosol cans to be managed under the universal waste regulations because generators may still want to manage empty aerosol cans as scrap metal for recycling.

EPA Response. EPA agrees that while aerosol cans that meet the standard for empty containers found at 40 CFR 261.7 should not be required to meet the universal waste requirements, they also should not be barred from being managed as universal waste if a handler chooses to do so. Residues in empty containers that meet the requirements of 40 CFR 261.7 are not subject to RCRA hazardous waste requirements. However, a handler is nevertheless allowed under the regulation to manage aerosol cans that meet the empty container standards as universal waste if they would prefer to do so. Likewise, non-hazardous aerosol cans may be managed as universal waste, although they are not required to be managed as such. EPA notes that the final definition of aerosol can is based on the DOT definition and no longer specifies that the cans must be "intact," thus removing a potential source of confusion.

b. Comment: Additional Guidance Needed on How to Determine if an Aerosol Can Meets the Empty Container Standard

Summary of Comments. Several commenters suggested that EPA provide additional guidance on how to determine if an aerosol can meets the empty container standard found at 40 CFR 261.7. One commenter suggested that EPA adopt guidance used by the State of Minnesota which recognizes an aerosol can as "empty" when (1) the container contains no compressed ignitable gas propellant or product; (2) all liquid product that can be dispensed through the valve has been; and (3) less than 3% of the product capacity of the container remains. Minnesota's guidance also recognizes that documenting that an aerosol can meets this standard can be impractical and therefore provides that aerosol cans may be assumed empty when both of the following criteria are satisfied: (1) no liquid is felt or heard when the can is shaken by hand; and (2) no gas or liquid is released when the spray/discharge valve is activated and the container is rotated through all directions, and the valve is not observably or known to be clogged.[17] Another commenter suggested that EPA add a provision to 40 CFR 261.7 stating that an aerosol can is empty when it has been punctured and drained. The commenter stated that this provision should apply to cans that hold characteristic or listed wastes.[18]

EPA Response. Under 40 CFR 261.7(b),[19] a container that has held non-acute hazardous waste is "empty" if (1) all wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating (applicable in all cases), and (2) no more than 2.5 centimeters (one inch) of residue remains on the bottom of the container or inner liner, or (3) no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size. In addition, a container that has held a hazardous waste that is a

[17] See comment number 0086 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[18] See comment number 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[19] EPA did not request comment on or otherwise reopen the empty container provisions of 40 CFR 261.7 and comments requesting changes to the empty container regulations are outside the scope of this rule.

compressed gas is empty when the pressure in the container approaches atmospheric pressure.

In the case of a container that has held an acute hazardous waste listed in 40 CFR 261.31 or 261.33(e), the container is considered empty when it has been triple rinsed or has been cleaned by another method that has been shown in scientific literature, or by tests conducted by the generator to achieve equivalent removal, per 40 CFR 261.7(b)(3). EPA also considers a container that has held an acute hazardous that is a compressed gas to meet the definition of empty when it approaches atmospheric pressure, as defined in 40 CFR 261.7(b)(2).[20] EPA is not aware of a chemical commonly found in aerosol cans that would be listed as an acute hazardous waste, but if such an aerosol can product does exist, it would have to meet the 40 CFR 261.7(b)(2) or (3) standard to be considered "empty" under the regulations. The commenter request for a revision to 40 CFR 261.7 that would allow aerosol cans that have held acutely hazardous waste to be disposed of without meeting the current standard in 40 CFR 261.7(b)(3) when punctured and drained is being beyond the scope of this rulemaking.

However, in the case of aerosol cans being recycled, rather than disposed of, aerosol cans that have been punctured and drained prior to recycling are considered exempt scrap metal under 40 CFR 261.6(a)(3)(ii), and therefore all such punctured cans would be exempt from hazardous waste requirements when recycled.

c. Comment: EPA Should Clarify that an Aerosol Can Does Not Need to be "Empty" to Be Exempt Scrap Metal

Summary of Comments. One commenter noted that EPA said in the proposed rule that aerosol containers that meet the definition of empty in 40 CFR 261.7 are not subject to hazardous waste

[20] EPA first explained this interpretation in 2017. *See* U.S. EPA *2017 RCRA Regulatory Status of Permeation Device,* Memo from Barnes Johnson, Director, Office of Resource Conservation and Recovery to Alex Chaharom, GeNO LLC, February 9, 2017. RO# 14887

regulation and may be recycled as scrap metal. They found this statement misleading because it implies that the aerosol can must be RCRA empty, per 40 CFR 261.7, to be classified as exempt scrap metal. The commenter stated that an aerosol container does not need to be completely empty or triple rinsed (if it held a P-listed waste) to be classified and recycled as scrap metal. However, it is a good management practice to remove as much of the waste from the aerosol can as possible.

EPA Response. Under 40 CFR 261.1, "scrap metal" is defined as bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled. Under 40 CFR 261.6(a)(3)(ii), exempt scrap metal is not subject to regulation under parts 262 through 268, part 270, or part 124, and is not subject to the notification requirements of section 3010 of RCRA.

However, an aerosol can that still contains hazardous liquid and/or hazardous compressed gas would not meet the definition of scrap metal and would not be eligible for the scrap metal exemption. As EPA has clearly stated, materials containing significant amounts of liquid cannot be eligible to be exempt scrap metal.[21] Thus while EPA agrees that aerosol cans do not need to be triple rinsed prior to being recycled as scrap metal, they do need to have their contents removed to be considered scrap metal.

d. Comment: Universal Waste Handlers Should Not be Required to Make a Hazardous Waste Determination on the Emptied Cans

Summary of Comments. One commenter noted that 40 CFR 273.13(e)(3)(v) and 273.33(e)(3)(v) of the proposed rule require that the universal waste handler "Conduct a hazardous waste

[21]EPA 1985 *Definition of Solid Waste Final Rule,* 50 FR 614 at 624-625, January 4, 1985.

determination on the emptied aerosol can and its contents per 40 CFR 262.11." While the commenter agreed on the need for a hazardous waste determination to be made on the contents, they stated that requiring it for the emptied cans contradicts prior EPA guidance regarding scrap metal. The proposed rule only allows for puncturing of cans on the condition that the empty punctured aerosol cans be recycled. EPA has previously stated that a formal hazardous waste determination is not required for scrap metal being recycled under 40 CFR 261.6(a)(3)(ii).[22]

EPA response. EPA agrees with the comment and has removed the language in 40 CFR 273.13(e)(3)(v) and 273.33(e)(3)(v) requiring a waste determination to be made on the emptied aerosol can destined for recycling.

B. *Management Requirements for Aerosol Cans*

1. Requirements for Small and Large Quantity Handlers

Under the final rule, the existing universal waste requirements currently applicable to small quantity handlers of universal waste (SQHUW) and large quantity handlers of universal waste (LQHUW) are also applicable to handlers of discarded aerosol cans.[23] For both SQHUWs and LQHUWs, these requirements include waste management standards, labeling and marking, accumulation time limits, employee training, responses to releases, requirements related to off-site shipments, and export requirements. LQHUWs are subject to additional notification and tracking requirements. For the labeling requirement, EPA is finalizing in 40 CFR 273.14 and 273.34 that either each aerosol can, or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Aerosol

[22] EPA 1993 Memorandum from Jeffrey D. Denit, Acting Director, Office of Solid Waste to Gregory L. Crawford. *Regulatory Status of Used Residential And Commercial/Industrial Aerosol Cans*, October 7, 1993, RO#11782; EPA 1994; Memorandum from to Michael H. Shapiro, Director, Office of Solid Waste, to Michael C. Campbell, *Regulatory Status of Waste Aerosol Cans*, January 1, 1994, RO#11806.

[23] Note that EPA did not ask for comment or otherwise reopen the pre-existing universal waste requirements that will now also apply to universal waste aerosol cans. Comments on the pre-existing universal waste requirements are beyond the scope of this rulemaking.

Can(s)," "Waste Aerosol Can(s)," or "Used Aerosol Can(s)."

In addition, EPA is finalizing that small and large quantity universal waste handlers must follow certain specific management standards while handling their universal waste aerosol cans. Under the final rule, all handlers must manage their universal waste aerosol cans in a manner designed to prevent releases to the environment. This management includes accumulating universal waste aerosol cans in containers that are structurally sound and compatible with the contents of the can, and show no evidence of leaks, spills, or damage that could cause leaks under reasonably foreseeable conditions. The accumulation requirements in this final rule are similar to the existing accumulation requirements for small and large quantity universal waste handlers for other types of universal waste in 40 CFR 273.13 and 273.33 and are found in new paragraph (e) of each of these sections. Handlers may sort aerosol cans by type and consolidate intact aerosol cans in larger containers, remove actuators to reduce the risk of accidental release, and, under certain conditions, may puncture and drain aerosol cans when the emptied cans are to be recycled, as described below.

Other than the comments on the requirements for puncturing and draining at small and large quantity handlers, which are described below, EPA received few comments on the requirements for small and large quantity universal waste handlers. One state association urged EPA to place limits on the accumulation requirements for universal waste handlers by requiring separation of incompatible wastes because of the wide array of products aerosol cans contain.[24] EPA is finalizing the performance-based standard that handlers must manage their universal waste aerosol cans in a manner that prevents releases, but EPA is not requiring separation of specific types of aerosol cans whose contents may pose an incompatibility risk because EPA

[24] See comment number 0073 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

expects the intact aerosol cans will ensure the contents of these cans will not mix and therefore will not pose incompatibility risks. In addition, EPA is requiring that universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the aerosol can universal waste requirements. (See 40 CFR 273.13(e)(2) and 40 CFR 273.33(e)(2)), thus removing the risk of incompatible contents mixing during storage and transport.

A waste management industry commenter suggested EPA require that handlers accumulate universal waste aerosol cans in strong outer packaging that will not be allowed to build pressure, that the contents of the aerosol cans are compatible, and that protective caps are in place or valve stems are removed to prevent the accidental release of the contents of the aerosol cans during storage and handling.[25] EPA is finalizing, as proposed, the performance-based standards that require the aerosol cans to be accumulated in containers that are structurally sound and compatible with the contents of the cans. EPA is not requiring handlers to remove the actuators to reduce the risk of accidental release but is allowing handlers to do so prior to accumulation if they choose.

A state commenter suggested that EPA include more specific safety measures to address the risk of cans bursting when exposed to excessive heat during accumulation, regardless of whether the handler punctures and drains the universal waste aerosol cans.[26] In order to address this risk, EPA added language to 40 CFR 273.13(e)(1) and 40 CFR 273.33(e)(1) to require the universal waste aerosol cans be accumulated in a container that is protected from sources of heat. Sources of heat include, but are not limited to, open flames; lighting; smoking; cutting and welding; hot surfaces; frictional heat; static, electrical, and mechanical sparks; and heat-

[25] See comment number 0063 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[26] See comment number 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

producing chemical reactions.[27] For example, handlers should not allow smoking or open flames near containers accumulating universal waste aerosol cans. It is the responsibility of the operator to ensure that the containers accumulating universal waste aerosol cans are protected from sources of heat.

2. Requirements on Puncturing and Draining at Small and Large Quantity Handlers

a. *Summary of Proposal*

EPA proposed specific management standards for the puncturing and draining of aerosol cans at universal waste handlers, similar to the requirements being implemented in states that added aerosol cans to their list of universal waste. EPA proposed that puncturing and draining activities be conducted by a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

EPA proposed that handlers must establish a written procedure detailing how to safely puncture and drain universal waste aerosol cans (including operation and maintenance of the unit; segregation of incompatible wastes; and proper waste management practices to prevent fires or releases), maintain a copy of the manufacturer's specification and instruction on site, and ensure that employees operating the devices are trained in the proper procedures.

EPA also proposed that the actual puncturing of the cans should be done in a manner designed to prevent fires and to prevent the release of the aerosol can contents to the environment so as to minimize human exposure. This included, but was not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.

In addition, EPA proposed that the contents from the cans should be immediately transferred from the waste aerosol cans or puncturing device (if applicable), to a container or

[27] This list is derived from OSHA's definition of "sources of ignition" in 29 CFR 1910.106(h)(7)(i)(*a*).

tank and that the contents are subject to a hazardous waste determination under 40 CFR 262.11. If the contents are hazardous waste, the handler becomes the hazardous waste generator of the hazardous aerosol can contents and must manage those wastes in accordance with applicable RCRA regulations.

The proposed rule also required that a written procedure be in place in the event of a spill or release and a spill clean-up kit must be provided. All spills or leaks of the contents must be cleaned up promptly.

EPA requested comment on establishing further limitations on the puncturing and draining of aerosol cans that may contain wastes incompatible with the puncturing and draining equipment or the contents of other cans being drained. EPA also requested comment on limiting puncturing and draining to handlers that are not commercial processors (i.e., a person that processes aerosol cans received from other entities in exchange for compensation). Such a limitation would be consistent with California's universal waste program. Handlers that are off-site commercial processors could still accept aerosol cans and process the cans by sorting and consolidating them but would be unable to puncture and drain the cans. Under this option, off-site commercial processors that would like to puncture and drain aerosol cans would have to first meet the requirements for a universal waste destination facility (e.g., obtaining a permit for the storage of the hazardous waste aerosol cans prior to recycling).

b. *Summary of Comments*

The most frequent comment EPA received on puncturing and draining was on limiting handlers from puncturing and draining aerosol cans received from off-site handlers. For example, waste management industry commenters and some state commenters requested that EPA not allow off-site handlers to puncture and drain aerosol cans collected from other handlers unless

they first meet the requirements for a universal waste destination facility.[28] On the other hand, an industry commenter and a state commenter requested that EPA not limit which handlers can puncture and drain aerosol cans.[29] Multiple industry commenters requested that, at a minimum, if EPA limits off-site handlers from puncturing and draining, EPA still allow off-site handlers to puncture and drain aerosol cans collected from other handlers in the same company or handlers that are related entities.[30]

EPA also received numerous comments on the specific management standards for the puncturing and draining of aerosol cans at universal waste handlers. EPA received broad comments from industry commenters supporting the proposed standards for the puncturing and draining of aerosol cans as sufficient and arguing that further limitations are not necessary.[31] EPA also received specific suggestions from industry commenters on the management standards. For example, one commenter recommended that EPA should not place additional limitations on puncturing and draining designed to address potential incompatibility concerns because they are not necessary.[32] On the other hand, one state requested that EPA prohibit handlers from puncturing and draining aerosol cans with possible incompatibility with the puncturing and draining equipment or the contents of other cans being drained.[33]

State associations commented that EPA should require puncturing and draining to be conducted in a commercially-manufactured device and not allow handlers to use "homemade"

[28] See comment numbers 0063, 0074, 0085, and 0091 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[29] See comment numbers 0029 and 0080 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[30] See comment numbers 0077, 0087, and 0093 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[31] See comment numbers 0075 and 0083 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[32] See comment number 0087 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[33] See comment number 0077 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

devices.[34] A commenter from the waste management industry argued that there is no basis for requiring puncturing and draining to be conducted in a commercial device and pointed out that many companies have designed and operated their own equipment for such purposes based on their engineering expertise.[35]

Commenters also asked for the requirement that puncturing and draining activities be conducted in a device designed to effectively contain the residual contents and emissions to be clarified.[36] Specifically, commenters requested EPA clarify what "effectively contain" means in relation to emissions and what constitutes breakthrough.[37] A state association commenter wrote that the only way to ensure the puncturing and draining activities are containing emissions it to implement an air monitoring program or to ensure the devices are equipped with "end of life" filters that show when breakthrough is occurring.[38] An industry commenter wrote that a requirement that allows for no breakthrough is not practical, but that handlers can maximize collection of emissions by following manufacturer instructions.[39]

EPA also received comments from state associations urging EPA to require handlers that puncture and drain to establish and follow a written procedure detailing how to safely puncture aerosol cans rather than only require handlers to establish a written procedure as proposed.[40] Commenters also pointed out that it is common practice to operate puncturing and draining devices on spill catchment pallets to aid in capturing accidental leaks or spills and asked EPA to

[34] See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[35] See comment number 0074 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[36] See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[37] See comment numbers 0001, 0073, and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[38] See comment number 0073 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[39] See comment number 0001 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[40] See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

allow this under the final rule.[41]

c. *Final Rule Provisions*

EPA expects puncturing and draining activities at universal waste handlers will differ from those currently performed by hazardous waste generators. Because handlers receive universal waste from many other handlers, the volume of aerosol cans punctured and drained at a commercial universal waste handler is likely to be much greater than at a typical hazardous waste generator (which can only puncture and drain its own hazardous waste aerosol cans). In addition, under universal waste regulations, handlers may store their universal waste up to a year, which could increase the number of cans punctured and drained at one time if the facility processes the cans in batches. Thus, EPA believes it is appropriate to include performance-based management standards to address the risk of puncturing and draining aerosol cans at universal waste handlers.

Despite the differences between recycling of aerosol cans at hazardous waste generators versus recycling of aerosol cans at universal waste handlers, under the final rule, EPA is not limiting off-site handlers from puncturing and draining aerosol cans collected from other handlers. Based on an observed lack of damage cases from puncturing and draining aerosol cans in the manner described in this rule, it appears that risks posed by universal waste handlers puncturing and draining aerosol cans collected from other handlers is relatively low. EPA has determined that the final management standards for the puncturing and draining of aerosol cans at universal waste handlers at 40 CFR 273.13(e)(4) and 40 CFR 273.33(e)(4) adequately address the low risks. Additionally, the five of the six states that have added aerosol cans to their list of universal wastes allow off-site handlers to puncture and drain aerosol cans collected from other

[41] See comment number 0064 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

handlers, and EPA is not aware of any damage cases resulting specifically from the puncturing and draining under universal waste in these states.[42] In particular, State officials from Colorado stated to EPA that their respective aerosol can universal waste programs have been in effect for over 15 years, and they have not identified any damage cases associated with puncturing and draining.[43]

As mentioned, EPA is finalizing management standards for the puncturing and draining of aerosol cans at universal waste handlers to increase protections. Under the final rule, puncturing and draining activities must be conducted by a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof. EPA is not finalizing that the puncturing and draining activities must be conducted in a commercial device or a commercially-manufactured device and is instead finalizing a performance-based standard. In response to comments, EPA is not limiting universal waste handlers that have designed their own equipment for puncturing and draining and operated it safely from continuing to use that equipment. If a universal waste handler uses specifically custom designed or retrofitted equipment to ensure that the device safely punctures aerosol cans, it should ensure the equipment is designed or retrofitted according to accepted engineering practices based on established codes, standards, published technical reports, or similar peer reviewed documents. Although EPA received comments from the waste management industry arguing that their members have safely designed and operated their own equipment for puncturing and draining aerosol cans, EPA expects most universal waste handlers will choose to purchase commercial devices designed to puncture aerosol cans. Puncturing and draining systems for aerosol cans are available from multiple commercial vendors. These devices

[42] See supporting document number 0004 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[43] See docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

generally consist of an enclosed puncturing device that punctures an aerosol can, allowing the contents to be drained into an attached container. In many cases, these containers are 55-gallon drums with a filter made of carbon or similar materials to capture any gases that may escape the 55-gallon drum during the puncturing and draining process.

Manufacturers of aerosol can puncturing and draining devices include instructions for their use.[44] These instructions include operating devices in a well-ventilated area that is free from sparks and ignition sources in order to prevent fires, use of personal protective equipment such as safety goggles, and segregating incompatible products from being drained into the same container. Operators of puncturing and draining devices are also instructed to ensure that the container remains closed, that it does not become overfilled, and that the container or tank storing the contents of the drained aerosol cans is also kept in a well-ventilated area free from sparks or ignition sources.

EPA received multiple comments arguing that the requirement that puncturing and draining activities be conducted in a device designed to effectively contain the residual contents and emissions needs to be clarified.[45] Specifically, commenters requested EPA clarify what "effectively contain" means in relation to emissions.[46] The performance of aerosol can puncturing and draining devices will vary by manufacturer and it remains the responsibility of the operator to ensure breakthrough is not occurring. Although commenters pointed out that handlers could ensure devices are equipped with "end of life" filters that show when breakthrough is occurring, it is impractical to impose this requirement on all universal waste handlers who use puncturing and draining equipment because the manufacturer's guidance with

[44] See supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[45] See comment numbers 0073 and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[46] See comment numbers 0001, 0073, and 0085 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

respect to containing emissions varies across the industry.[47] For example, some manufacturers recommend limiting the number of cans drained per filter while other manufacturers recommend weighing the filter before and during use.[48] Given the variability in the market, it is impractical for EPA to determine a single, appropriate standard for ensuring breakthrough is not occurring. Rather, EPA is finalizing as proposed the performance-based standard that universal waste handlers must use a device designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof. Universal waste handlers can minimize the potential for breakthrough by maintaining the puncturing and draining device and replacing air filters according to the manufacturer's specifications.

Because handlers are responsible for ensuring that the puncturing device is properly draining the contents of the aerosol cans into the drum, EPA is finalizing that handlers must establish and follow a written procedure to ensure that handlers take the necessary precautions to protect human health and the environment while puncturing and draining universal waste aerosol cans. At a minimum, EPA is requiring that the written procedure address the operation and maintenance of the unit, including its proper assembly; segregation of incompatible wastes; and proper waste management practices (e.g., ensuring that ignitable wastes are stored away from heat or open flames). In order to increase protections, EPA is clarifying in the final rule that handlers must follow the written procedure. Additionally, EPA is finalizing that handlers must maintain a copy of the manufacturers' instructions on site and ensure employees operating the device are trained in the proper procedures.

Although some states have issued guidelines for recommending against puncturing and

[47] See supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).
[48] See comment number 0005 and supporting document 0003 in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

draining certain types of aerosol cans, there is limited publicly available data on the subset of aerosol cans that pose an incompatibility risk. Additionally, since new products enter the market and products are constantly changing, it is not practical to codify a finite list of aerosol cans that pose an incompatibility risk. Therefore, EPA is not providing a list of certain types of aerosol cans that might pose incompatibility issues with puncturing devices or the contents of other aerosol cans that are drained. However, it remains the responsibility of the operator to ensure that the puncturing device does not puncture aerosol cans that are incompatible with its materials or the contents of other aerosol cans that are being drained. Because aerosol cans are consumer products, aerosol cans have labels that identify the products contained within, including any hazardous posed by the contents which can assist handlers in ensuring they have addressed incompatibility issues. As mentioned above, EPA is requiring handlers to establish and follow a written procedure that addresses the operation of the unit, including the segregation of incompatible wastes. The operator can look to state guidance and manufacturer's guidance for information. For example, manufacturers make information available regarding potential incompatibilities between aerosol can propellants and puncturing devices container rubber seals or gaskets.[49]

EPA is also finalizing that the actual puncturing of the cans be done in a manner designed to prevent fires and to prevent the release of the aerosol can contents to the environment so as to minimize human exposure. This manner includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area. Commenters pointed out that it is common practice to operate puncturing and draining devices on spill catchment pallets to aid in capturing accidental leaks or spills, which is allowed under the final rule if the spill catchment pallet is

[49] See *Compilation of Manufacturer's Guidance on Devices for Puncturing and Draining Aerosol Cans,* December 2017, in the docket for this rulemaking (EPA-HQ-RCRA-2017-0463).

located on a solid, flat surface.

In addition, EPA is finalizing that the handler must immediately transfer the contents from the waste aerosol can, or the puncturing device (if applicable), to a container or tank and conduct a hazardous waste determination of the contents under 40 CFR 262.11. The handler becomes the generator of any hazardous aerosol can contents and must manage those wastes in accordance with applicable RCRA regulations.

The final rule also requires that a written procedure be in place in the event of a spill or leak and a spill clean-up kit should be provided. All spills or leaks of the contents of the aerosol cans should be cleaned up promptly.

Finally, EPA notes that all puncturing, waste collection, and disposal must be conducted in compliance with all applicable Federal, state and local waste (solid and hazardous waste) and occupational safety and health laws and regulations.

3. Requirements for Transporters

This final rule will not change any of the existing requirements applicable to universal waste transporters. Under 40 CFR 273.9, the definition of a universal waste transporter is a person engaged in the off-site transportation of universal waste by air, rail, highway, or water. Persons meeting the definition of universal waste transporter include those persons who transport universal waste from one universal waste handler to another, to a processor, to a destination facility, or to a foreign destination. These persons are subject to the universal waste transporter requirements of part 273, subpart D. EPA notes that this final rule also will not affect the applicability of shipping requirements under the hazardous waste materials regulations of DOT. Transporters continue to be subject to these requirements, if applicable (e.g., 49 CFR 173.306 for shipping of limited quantities of aerosol cans, or 49 CFR 173.115(l), which sets limits in the

definition of "aerosol" for the purpose of shipping flammable gas).

4. Requirements for Destination Facilities

This final rule will not change any of the existing requirements applicable to universal waste destination facilities (subpart E of part 273). Under 40 CFR 273.9, the definition of a destination facility is a facility that treats, disposes of, or recycles a particular category of universal waste (except certain activities specified in the regulations at §§ 273.13(a) and (c) and 273.33(a) and (c)).

5. Effect of This Rule on Household Wastes and Very Small Quantity Generators

Adding hazardous waste aerosol cans to the Federal definition of universal wastes would not impose any requirements on households or VSQGs for managing these cans. Household waste continues to be exempt from RCRA Subtitle C regulations under 40 CFR 261.4(b)(1). However, under the Universal Waste Rule provisions, VSQGs may choose to manage their hazardous waste aerosol cans in accordance with either the VSQG regulations under 40 CFR 262.14 or as a universal waste under part 273 (40 CFR 273.8(a)(2)). It should be noted, however, that 40 CFR 273.8(b) will continue to apply. Under this provision, if household or VSQG wastes are mixed with universal waste subject to the requirements of 40 CFR part 273 (i.e., universal waste that is not generated by households or VSQGs), the commingled waste must be handled as universal waste in accordance with part 273. Under this final rule, handlers of universal waste who accumulate 5,000 kilograms or more of this commingled aerosol can waste at any time will be considered large quantity handlers of universal waste and must meet the requirements of that category of universal waste handler.

Hazardous waste aerosol cans that are managed as a universal waste under 40 CFR part 273 will not be required to be included in a facility's determination of hazardous waste generator

status (40 CFR 262.13(c)(6)). Therefore, a generator that manages such cans under the requirements for universal waste and does not generate any other hazardous waste will not be subject to other Subtitle C hazardous waste management regulations, such as the hazardous waste generator regulations in part 262. A universal waste handler that meets the definition of a small quantity generator or large quantity generator in 40 CFR 260.10 for its other hazardous waste will be subject to the hazardous waste generator regulations in part 262.

6. Applicability of Land Disposal Restriction Requirements

This final rule does not change the applicability of land disposal restriction (LDR) requirements to universal waste. Under the existing regulations (40 CFR 268.1(f)), universal waste handlers and transporters are exempt from the LDR requirements regarding testing, tracking, and recordkeeping in 40 CFR 268.7, and the storage prohibition in 40 CFR 268.50. EPA is amending 40 CFR 268.1(f) to add aerosol can universal waste for consistency. This final rule also does not change the regulatory status of destination facilities; they remain subject to the full LDR requirements.

VI. Technical Corrections

As part of this rulemaking, EPA is finalizing four technical corrections to the universal waste standards for mercury-containing equipment in 40 CFR 273.13(c)(2)(iii) and (iv) and 273.33(c)(2)(iii) and (iv). Each of these paragraphs contained a reference to 40 CFR 262.34, which was removed and reserved as part of the November 28, 2016, Hazardous Waste Generator Improvements Rule (81 FR 85732). EPA neglected to update these references as part of its corresponding changes in that rule and is correcting that mistake here. In all four places, EPA proposed revisions to make the regulations refer to 40 CFR 262.16 or 262.17, as applicable. As a result of a comment stating that this revision did not include references to other potentially

applicable paragraphs of the hazardous waste generator regulations in part 262, EPA has revised the language and is finalizing language that matches references in §§ 273.13(a) and 273.33(a). The final language states that mercury from broken ampules must be transferred to a container subject to all applicable requirements of 40 CFR parts 260 through 272.

VII. State Authority

A. *Applicability of Final Rule in Authorized States*

Under section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA hazardous waste program within the state. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and 7003 of RCRA, although authorized states have enforcement responsibility. The standards and requirements for state authorization are found at 40 CFR part 271. Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a state with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the Federal program in that state. The Federal requirements no longer applied in the authorized state, and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When EPA promulgated new, more stringent Federal requirements for these pre-HSWA regulations, the state was obligated to enact equivalent authorities within specified time frames. However, the new Federal requirements did not take effect in an authorized state until the state adopted the Federal requirements as state law. In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized states at the same time that they take effect in unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized states, including the issuance of permits, until the state is granted

authorization to do so. While states must still adopt HSWA-related provisions as state law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

Authorized states are required to modify their programs only when EPA enacts Federal requirements that are more stringent or broader in scope than existing Federal requirements. RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program (see also 40 CFR 271.1). Therefore, authorized states may, but are not required to, adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous Federal regulations.

B. *Effect on State Authorization*

This final rule will be less stringent than the current Federal program. Because states are not required to adopt less stringent regulations, they will not have to adopt the universal waste regulations for aerosol cans, although EPA encourages them to do so. Some states have already added aerosol cans to the list of universal wastes, and others may do so in the future. If a state's standards for aerosol cans are less stringent than those in the final rule, the state would have to amend its regulations to make them at least equivalent to the Federal standards and pursue authorization.

VIII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at http://www.epa.gov/laws-regulations/laws-and-executive-orders.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This regulatory action was determined to be not significant and was therefore not

submitted to the Office of Management and Budget (OMB) for review. This regulatory action was determined to be not significant for purposed E.O. 12866 review. The Office of Management and Budget (OMB) waived review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is considered an Executive Order 13771 deregulatory action. Details on the estimated cost savings of this final rule can be found in EPA's analysis of the costs and benefits associated with this action.

C. Paperwork Reduction Act (PRA)

The information collection activities in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) documents that the EPA prepared have been assigned EPA ICR number 1597.13 and ICR number 2513.04. You can find a copy of the ICRs in the docket for this rule, and they are briefly summarized here.

Because aerosol cans managed under the final rule are not counted toward a facility's RCRA generator status, respondents will see a reduction in burden. This reduction is because the aerosol cans will not be subject to recordkeeping and reporting requirements as hazardous waste, and the respondent may no longer be subject to hazardous waste generator recordkeeping and reporting requirements, depending on the quantity of hazardous waste they generate (that is not hazardous waste aerosol cans or other universal wastes). The existing universal waste requirements currently applicable to SQHUWs and LQHUWs will also be applicable to handlers of aerosol can universal waste. For both SQHUWs and LQHUWs, these requirements include labeling and marking, employee training, response to releases, and export requirements. LQHUWs are also subject to additional notification and tracking requirements. EPA ICR number

1597.13 focuses on the increased burden to the universal waste program resulting from new facilities becoming universal waste handlers. EPA ICR number 2513.04 focuses on the decrease in burden associated with this regulation.

Respondents/affected entities: The information collection requirements of the final rule affect facilities that handle aerosol can universal waste and vary based on facility generator and handler status.

Respondent's obligation to respond: The recordkeeping and notification requirements are required to obtain a benefit under 40 CFR part 273.

Estimated number of respondents: 970

Frequency of response: One-time notification for LQHUWs; annual training requirements for all universal waste handlers; per-shipment costs for labeling (all handlers) and tracking (LQHUWs).

Total estimated burden: EPA estimates the annual burden to respondents to be *a net reduction in burden of* approximately 62,621 hours. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: The total estimated annual cost of this rule is a *cost savings* of approximately $2.77 million. This cost savings is composed of approximately $2.65 million in annualized avoided labor costs and $23,000 in avoided capital or operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the Federal Register and publish a technical amendment in 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. As documented in the Regulatory Impact Analysis found in the docket for this final rule, EPA does not expect the rule to result in an adverse impact to a significant number of small entities, since the rule is expected to result in net cost savings for all entities affected by the rule. We have therefore concluded that this action will either relieve regulatory burden or have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

As documented in the Regulatory Impact Analysis found in the docket for this rule, this action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

F. Executive Order 13132: Federalism

As documented in the Regulatory Impact Analysis found in the docket for this rule, this action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the National Government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. Because the rule is expected to result in net cost savings, EPA does not expect that it will result

in any adverse impacts on tribal entities. Thus, Executive Order 13175 does not apply to this action.

H. *Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in the Regulatory Impact Analysis found in the docket for this rule.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. *National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

K. *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in the Regulatory Impact Analysis found in the docket for this rule.

L. *Congressional Review Act (CRA)*

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Part 260

Environmental protection, Administrative practice and procedure, Hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 264

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds.

40 CFR Part 265

Environmental protection, Air pollution control, Hazardous waste, Insurance, Packaging and containers, Reporting and recordkeeping requirements, Security measures, Surety bonds, Water supply.

40 CFR Part 268

Environmental protection, Hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 270

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous materials transportation, Hazardous waste, Reporting and recordkeeping requirements, Water pollution control, Water supply.

40 CFR Part 273

Environmental protection, Hazardous materials transportation, Hazardous waste.

Dated: November 15, 2019.

Andrew R. Wheeler,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, of the Code of Federal Regulations, parts 260, 261, 264, 265, 268, 270, and 273 are amended as follows:

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921–6927, 6930, 6934, 6935, 6937, 6938, 6939, 6939g, and 6974.

Subpart B—Definitions

2. Section 260.10 is amended by:

a. Adding the definition of "Aerosol can" in alphabetical order;

b. Republishing the introductory text for the definition "Universal waste" and revising paragraphs (3) and (4) and adding paragraph (5); and

c. In the definition of "Universal waste handler," revising paragraph (2)(i).

The additions and revisions read as follows:

§ 260.10 Definitions.

* * * * *

Aerosol can means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

* * * * *

Universal waste means any of the following hazardous wastes that are managed under the universal waste requirements of part 273 of this chapter:

* * * * *

(3) Mercury-containing equipment as described in § 273.4 of this chapter;

(4) Lamps as described in § 273.5 of this chapter; and

(5) Aerosol cans as described in § 273.6 of this chapter.

* * * * *

Universal waste handler:

*****

(2) * * *

(i) A person who treats (except under the provisions of 40 CFR 273.13(a) or (c), or 40 CFR 273.33(a) or (c)), disposes of, or recycles (except under the provisions of 40 CFR 273.13(e) or 40 CFR 273.33(e)) universal waste; or

*****

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

3. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y) and 6938.

Subpart A—General

4. Section 261.9 is amended by revising paragraphs (c) and (d) and adding paragraph (e) to read as follows:

§ 261.9 Requirements for Universal Waste.

* * * * *

(c) Mercury-containing equipment as described in § 273.4 of this chapter;

(d) Lamps as described in § 273.5 of this chapter; and

(e) Aerosol cans as described in § 273.6 of this chapter.

PART 264—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

5. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, and 6939g.

Subpart A—General

6. Section 264.1 is amended by revising paragraphs (g)(11)(iii) and (iv) and adding paragraph (g)(11)(v) to read as follows:

§ 264.1 Purpose, scope and applicability.

* * * * *

(g) * * *

(11) * * *

(iii) Mercury-containing equipment as described in § 273.4 of this chapter;

(iv) Lamps as described in § 273.5 of this chapter; and

(v) Aerosol cans as described in § 273.6 of this chapter.

* * * * *

PART 265—INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

7. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6906, 6912, 6922, 6923, 6924, 6925, 6935, 6936, 6937, and 6939g.

Subpart A—General

8. Section 265.1 is amended by revising paragraphs (c)(14)(iii) and (iv) and adding paragraph (c)(14)(v) to read as follows:

§ 265.1 Purpose, scope, and applicability.

* * * * *

(c) * * *

(14) * * *

(iii) Mercury-containing equipment as described in § 273.4 of this chapter;

(iv) Lamps as described in § 273.5 of this chapter; and

(v) Aerosol cans as described in § 273.6 of this chapter.

* * * * *

PART 268—LAND DISPOSAL RESTRICTIONS

9. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

Subpart A—General

10. Section 268.1 is amended by revising paragraphs (f)(3) and (4) and adding paragraph (f)(5) to read as follows:

§ 268.1 Purpose, scope, and applicability.

* * * * *

(f) * * *

(3) Mercury-containing equipment as described in § 273.4 of this chapter;

(4) Lamps as described in § 273.5 of this chapter; and

(5) Aerosol cans as described in § 273.6 of this chapter.

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

11. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939, and 6974.

Subpart A—General Information

12. Section 270.1 is amended by revising the section heading and paragraphs (c)(2)(viii)(C) and

(D) and adding paragraph (c)(2)(viii)(E) to read as follows:

§ 270.1 Purpose and scope of the regulations in this part.

* * * * *

(c) * * *

(2) * * *

(viii) * * *

(C) Mercury-containing equipment as described in § 273.4 of this chapter;

(D) Lamps as described in § 273.5 of this chapter; and

(E) Aerosol cans as described in § 273.6 of this chapter.

* * * * *

PART 273—STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

13. The authority for part 273 continues to read as follows:

Authority: 42 U.S.C. 6922, 6923, 6924, 6925, 6930, and 6937.

Subpart A—General

14. Section 273.1 is amended by revising paragraphs (a)(3) and (4) and adding paragraph (a)(5) to read as follows:

§ 273.1 Scope.

(a) * * *

(3) Mercury-containing equipment as described in § 273.4;

(4) Lamps as described in § 273.5; and

(5) Aerosol cans as described in § 273.6.

* * * * *

15. Section 273.3 is amended by revising paragraph (b)(2) to read as follows:

§ 273.3 Applicability—pesticides.

* * * * *

(b) * * *

(2) Pesticides not meeting the conditions set forth in paragraph (a) of this section. These pesticides must be managed in compliance with the hazardous waste regulations in 40 CFR parts 260 through 272, except that aerosol cans as defined in § 273.9 that contain pesticides may be managed as aerosol can universal waste under § 273.13(e) or § 273.33(e);

* * * * *

16. Section 273.6 is added to read as follows:

§ 273.6 Applicability—Aerosol cans.

(a) *Aerosol cans covered under this part.* The requirements of this part apply to persons managing aerosol cans, as described in § 273.9, except those listed in paragraph (b) of this section.

(b) *Aerosol cans not covered under this part.* The requirements of this part do not apply to persons managing the following types of aerosol cans:

(1) Aerosol cans that are not yet waste under part 261 of this chapter. Paragraph (c) of this section describes when an aerosol can becomes a waste;

(2) Aerosol cans that are not hazardous waste. An aerosol can is a hazardous waste if the aerosol can exhibits one or more of the characteristics identified in part 261, subpart C, of this chapter or the aerosol can contains a substance that is listed in part 261, subpart D, of this chapter; and

(3) Aerosol cans that meet the standard for empty containers under § 261.7 of this chapter.

(c) *Generation of waste aerosol cans.* (1) A used aerosol can becomes a waste on the date it is discarded.

(2) An unused aerosol can becomes a waste on the date the handler decides to discard it.

17. Section 273.9 is amended by:

a. Adding the definition of "Aerosol can" in alphabetical order;

b. Revising the definitions of "Large Quantity Handler of Universal Waste" and "Small Quantity Handler of Universal Waste";

c. Revising the introductory text and paragraphs (3) and (4) and adding paragraph (5) to the definition of "Universal Waste";

d. In the definition of "Pesticide":

i. Redesignating paragraphs (a), (b), and (c) as paragraphs (1), (2), and (3), respectively;

ii. In newly redesignated paragraphs (1) and (2), removing the comma and adding a semicolon in its place; and

iii. In newly redesignated paragraph (3), removing "(a) or (b) of this section" and adding in its place "(1) or (2)" of this definition;

e. In the definition of "Universal Waste Handler":

i. Removing "Waste Handler" and adding "waste handler" in its place;

ii. Redesignating paragraphs (a) introductory text, (a)(1) and (2), (b) introductory text, and (b)(1) and (2) as paragraphs (1) introductory text, (1)(i) and (ii), (2) introductory text, and (2)(i) and (ii), respectively; and

iii. Revising newly redesignated paragraph (2)(i);

f. In the definition of "Universal Waste Transfer Facility," removing "Waste Transfer Facility" and adding "waste transfer facility" in its place; and

g. In the definition of "Universal Waste Transporter," removing "Waste Transporter" and adding "waste transporter" in its place.

The revisions and additions read as follows:

§ 273.9 Definitions.

Aerosol can means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

* * * * *

Large quantity handler of universal waste means a universal waste handler (as defined in this section) who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000-kilogram limit is met or exceeded.

* * * * *

Small quantity handler of universal waste means a universal waste handler (as defined in this section) who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

* * * * *

Universal waste means any of the following hazardous wastes that are subject to the universal waste requirements of this part:

* * * * *

(3) Mercury-containing equipment as described in § 273.4;

(4) Lamps as described in § 273.5; and

(5) Aerosol cans as described in § 273.6.

* * * * *

Universal waste handler:

* * * * *

(2) * * *

(i) A person who treats (except under the provisions of § 273.13(a) or (c), or § 273.33(a) or (c)), disposes of, or recycles (except under the provisions of § 273.13(e) or § 273.33(e)) universal waste; or

* * * * *

Subpart B—Standards for Small Quantity Handlers of Universal Waste

18. Section 273.13 is amended by revising paragraphs (c)(2)(iii) and (iv) and adding paragraph (e) to read as follows:

§ 273.13 Waste management.

* * * * *

(c) * * *

(2) * * *

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

* * * * *

(e) *Aerosol cans.* A small quantity handler of universal waste must manage universal waste

aerosol cans in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of paragraph (e)(4) of this section.

(3) A small quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) Sorting aerosol cans by type;

(ii) Mixing intact cans in one container; and

(iii) Removing actuators to reduce the risk of accidental release; and

(4) A small quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste

management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This manner includes, but is not limited to, locating the equipment on a solid, flat surface in a well-ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 40 CFR 262.14, 262.15, 262.16, or 262.17.

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can per 40 CFR 262.11. Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous waste and is subject to 40 CFR part 262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable Federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or leak and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

19. Section 273.14 is amended by adding paragraph (f) to read as follows:

§ 273.14 Labeling/marking.

* * * * *

(f) Universal waste aerosol cans (i.e., each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Aerosol Can(s)," "Waste Aerosol Can(s)," or "Used Aerosol Can(s)".

Subpart C—Standards for Large Quantity Handlers of Universal Waste

20 Section 273.32 is amended by revising paragraph (b)(4) to read as follows:

§ 273.32 Notification.

* * * * *

(b) * * *

(4) A list of all the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing equipment, lamps, and aerosol cans); and

* * * * *

21. Section 273.33 is amended by revising paragraphs (c)(2)(iii) and (iv) and adding paragraph (e) to read as follows:

§ 273.33 Waste management.

* * * * *

(c) * * *

(2) * * *

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from

the containment device to a container is subject to all applicable requirements of 40 CFR parts 260 through 272;

* * * * *

(e) *Aerosol cans.* A large quantity handler of universal waste must manage universal waste aerosol cans in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of paragraph (e)(4) of this section.

(3) A large quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) Sorting aerosol cans by type;

(ii) Mixing intact cans in one container; and

(iii) Removing actuators to reduce the risk of accidental release; and

(4) A large quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases); maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of 40 CFR 262.14, 262.15, 262.16, or § 262.17.

(v) Conduct a hazardous waste determination on the contents of the emptied can per 40 CFR 262.11. Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the hazardous waste and is subject to 40 CFR part 262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable Federal, state, or local solid waste regulations.

(vii) A written procedure must be in place in the event of a spill or release and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.

22 Section 273.34 is amended by adding paragraph (f) to read as follows:

§ 273.34 Labeling/marking.

* * * * *

(f) Universal waste aerosol cans (*i.e.*, each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: "Universal Waste—Aerosol Can(s)", "Waste Aerosol Can(s)", or "Used Aerosol Can(s)".

[FR Doc. 2019-25674 Filed: 12/6/2019 8:45 am; Publication Date: 12/9/2019]